UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:
OSB2000-0104

July 26, 2000

Mr. Lawrence C. Evans
Chief, Regulatory Branch
Corps of Engineers, Portland District
ATTN: William Davis
P.O. Box 2946
Portland, Oregon 97232

Re: Formal Section 7 Consultation for the Todd Cook Bank Stabilization Project, Columbia County, Oregon (Corps No.: 2000-307).

Dear Mr. Evans:

On May 22, 2000, the National Marine Fisheries Service (NMFS) received a letter from the Corps of Engineers (COE) requesting concurrence with its determination that issuance of a permit for the Todd Cook Bank Stabilization Project (permit 2000-307)(the Project) is not likely to adversely affect listed species or adversely affect designated critical habitats. The Project is located on the North Fork Scappoose Creek, creek mile 5.6, near the Town of Scappoose, in Columbia County, Oregon. The proposed action is for streambank stabilization and consists of constructing three rock barbs.

Three species are listed as threatened in the project area and a fourth species is a candidate for listing. Lower Columbia River steelhead (*Oncorhynchus mykiss*) was listed as threatened on March 19, 1998 (63 FR 13347). Lower Columbia River chinook salmon (*Oncorhynchus tshawytscha*) was listed as threatened on March 24, 1999 (64 FR 14308). Columbia River chum salmon (*Oncorhynchus keta*) was listed as a threatened species on March 29, 1999. Critical habitats for all three of these species were designated on February 16, 2000 (65 FR 7764). The Lower Columbia River/Southwest Washington coho salmon (*Oncorhynchus kisutch*) also occurs within the project area. This species was made a candidate for listing on July 25, 1995 (60 FR 38011) and was considered in this consultation as well.

The Southwestern Washington/Columbia River Coastal cutthroat trout (*Oncorhynchus clarki clarki*) was proposed for listing as a threatened species on April 5, 1999 (64 FR16397). By agreement with NMFS, the U.S. Fish and Wildlife Service (USFWS) assumed sole regulatory jurisdiction over all forms of Coastal cutthroat trout on November 26, 1999. The outcome of the final listing assessment is still pending but should be announced by the USFWS by October, 2000.

After reviewing the proposed action, the NMFS does not concur with the COE's effects determination for reasons set forth in the attached biological opinion. However, the NMFS does find that the

likely adverse affects of the proposed action will not jeopardize the continued existence of any listed species mentioned above, or adversely modify designated critical habitats. An incidental take statement attached to the biological opinion sets forth non-discretionary terms and conditions, including monitoring and reporting requirements, that must be complied with to be exempt from the take prohibitions of section 9 of the Endangered Species Act.

If you have any questions regarding this Opinion, please contact Ben Meyer of my staff in the Oregon State Branch Office at (503) 230-5425.

Sincerely,

For Michael R Crouse

William Stelle, Jr.
Regional Administrator

Enclosure

Endangered Species Act - Section 7
Consultation

Biological Opinion

Todd Cook
Bank Stabilization Project

Agency: U.S. Army Corps of Engineers, Portland District

Consultation Conducted By: National Marine Fisheries Service,
Northwest Region

Date Issued: July 26, 2000

Refer to: OSB2000-0104

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I. BACKGROUND

On May 22, 2000, the National Marine Fisheries Service (NMFS) received a letter from the Corps of Engineers (COE) requesting concurrence with its determination that issuance of a permit for the Todd Cook Bank Stabilization Project (permit 2000-307)(the Project) is not likely to adversely affect (NLAA) listed species or designated critical habitats. The Project is located on the North Fork Scappoose Creek, creek mile 5.6, near the Town of Scappoose, in Columbia County, Oregon. The proposed action is construction of three rock barbs for streambank stabilization.

For reasons provided below, the NMFS does not concur with the COE's NLAA finding and prepared this biological opinion to determine whether the proposed action is likely to jeopardize the continued existence of listed species in the action area, or destroy or adversely modify designated critical habitats.

II. PROPOSED ACTION

The proposed action is construction of three rock barbs, each 13' long by 5' wide by 5' high in a 130' stretch of the North Fork Scappoose Creek to stabilize an eroding bank that is threatening the loss of a garage. Construction would occur during the in-water work window for Scappoose Creek to minimize adverse impacts to salmonids. Equipment would work from the bank; silt fences would be erected to control sediment and turbidity; no trees would be removed; and disturbed areas would be revegetated with native grasses.

III. LISTED SPECIES AND CRITICAL HABITAT

Five anadromous salmonid species with special status under the Endangered Species Act (the Act) may be found within the project area. Lower Columbia River steelhead (*Oncorhynchus mykiss*) was listed as a threatened species on March 19, 1998 (63 FR 13347). Lower Columbia River chinook salmon (*Oncorhynchus tshawytscha*) was listed as threatened on March 24, 1999 (64 FR 14308). Columbia River chum salmon (*Oncorhynchus keta*) was listed as threatened on March 29, 1999. Critical habitats for each of these three species were designated on February 16, 2000 (65 FR 7764). The Lower Columbia River/Southwest Washington coho salmon (*Oncorhynchus kisutch*) was added the Candidate List on July 25, 1995 (60 FR 38011), and was also considered in this Opinion. The Southwestern Washington/Columbia River coastal cutthroat trout (*Oncorhynchus clarki clarki*) may occur within the project area and was proposed for listing as a threatened species on April 5, 1999 (64 FR16397). By agreement with NMFS, the U.S. Fish and Wildlife Service (USFWS) assumed sole regulatory jurisdiction over all forms of coastal cutthroat trout on November 26, 1999. Therefore, that species was not considered in this biological opinion. The outcome of the final listing assessment is still pending but should be announced by the USFWS by October 2000.

The action area is defined by NMFS regulations (50 CFR 402) as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." The action area includes designated critical habitats affected by the proposed action within the North Fork Scappoose Creek. This area serves as a migratory corridor for both adult and juvenile life stages of listed anadromous salmonids, and a rearing area for juveniles. Essential features of the adult and juvenile migratory corridor and juvenile rearing habitats are as follows: 1) Substrate; 2) water quality; 3) water quantity; 4) water temperature; 5) water velocity; 6) cover/shelter; 7) food (juvenile only); 8) riparian vegetation; 9) space; and 10) safe passage conditions (50 CFR 226). The essential features which the proposed project may affect are water quality (resulting from construction activities), water velocity, cover/shelter, food, substrate and safe passage conditions (as a result of structures placed in the river).

IV. EVALUATING PROPOSED ACTIONS

Standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA as defined by 50 CFR 402 (the consultation regulations). NMFS must determine whether the action is likely to jeopardize the listed species and/or whether the action is likely to destroy or adversely modify critical habitats. This analysis involves the initial steps of: 1) Defining the biological requirements of the listed species; and 2) evaluating the relevance of the environmental baseline to the species' current status.

Subsequently, NMFS evaluates whether the action is likely to jeopardize the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NMFS must consider the estimated level of mortality attributable to: 1) Collective effects of the proposed or continuing action; 2) the environmental baseline; and 3) any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed salmon's life stages that occur beyond the action area. If NMFS finds that the action is likely to jeopardize the listed or proposed species, NMFS must identify reasonable and prudent alternatives for the action.

NMFS also evaluates whether the action, directly or indirectly, is likely to destroy or adversely modify the listed species' critical habitat. The NMFS must determine whether habitat modifications appreciably diminish the value of critical habitats for both survival and recovery of the listed species. The NMFS identifies those effects of the action that impair the function of any essential feature of a critical habitat. The NMFS then considers whether such impairment appreciably diminishes the habitat's value for the species' survival and recovery. If NMFS concludes that the action will adversely modify a critical habitat, it must identify any reasonable and prudent measures available.

For the proposed action, NMFS' jeopardy analysis considers direct or indirect mortality of fish attributable to the action. NMFS' critical habitat analysis considers the extent to which the proposed

action impairs the function of essential elements necessary for migration, spawning, and rearing of the listed and proposed species under the existing environmental baseline.

A. Biological Requirements

The first step in the methods NMFS uses for applying the ESA section 7(a)(2) to listed salmon is to define the species' biological requirements that are most relevant to each consultation. NMFS also considers the current status of the listed species taking into account population size, trends, distribution and genetic diversity. To assess to the current status of the listed species, NMFS begins with the determinations made in its decision to list the species for ESA protection and also considers new data available that is relevant to the determination (Weitkamp et al. 1995, Myers et al. 1998).

The relevant biological requirements are those necessary for listed species to survive and recover to a naturally reproducing population level at which protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance its capacity to adapt to various environmental conditions, and allow it to become self-sustaining in the natural environment.

For this consultation, the biological requirements are improved habitat characteristics that function to support successful rearing and migration. The current status of the listed species, based upon its risk of extinction, has not significantly improved since the species was listed.

B. Environmental Baseline

The biological requirements of the listed species are currently not being met under the environmental baseline. Their status is such that there must be a significant improvement in the environmental conditions they experience over those currently available under the environmental baseline. Any further degradation of these conditions would have a significant impact due to the amount of risk they presently face under the environmental baseline.

The action area is defined as the area that is directly and indirectly affected by the proposed action. The direct effects occur at the project site and may extend upstream or downstream, based on the potential for impairing fish passage, hydraulics, and sediment discharge. Indirect effects may occur throughout the watershed where actions described in this Opinion lead to additional activities or affect ecological functions contributing to stream degradation. For the purposes of this Opinion, the action area is defined as the area of the North Fork Scappoose Creek from river mile 5.6 downstream to Scappoose Bay.

V. ANALYSIS OF EFFECTS

A. Effects of Proposed Actions

The NMFS expects that, in the short term, construction activities will increase sediment delivery to the stream but that will be offset by reduced erosion and input of sediment from the scour area that is taking place under existing conditions. Use of equipment to trench out the area for rock placement is unlikely to result in direct entrainment of any juvenile steelhead that may be in the area. However, any juveniles in the project area will be displaced due to construction activities. In the medium to long-term, increased bank stability will reduce sedimentation and current riparian habitat will be maintained. The net effect from the proposed action over the long-term is unknown. Bank barbs move the thalweg back to mid-channel and thus are very likely to alter hydraulic functions and sedimentation and erosion processes downstream, although the size and scope of these effects are unknown.

B. Effects on Critical Habitat

NMFS designates critical habitat based on physical and biological features that are essential to the listed species. Essential features for designated critical habitat are as follows: 1) Substrate; 2) water quality; 3) water quantity; 4) water temperature; 5) food; 6) riparian vegetation; 7) access; 8) water velocity; 9) space; and, 10) safe passage. For the proposed action, NMFS expects that the effects will tend to maintain habitat at the site under current baseline conditions over the long term. The existing channel edge provides a poor habitat for juveniles due to erosion. The bank barbs will create slack water areas and maybe some pools that will increase habitat for adults and juvenile steelhead.

Potential downstream effects to the bankline are uncertain and are dependent on what effect the barbs have on the hydraulics of the creek but may range from no effect, to creation of new scour points downstream resulting from the changes in the creek's thalweg.

C. Cumulative Effects

Cumulative effects are defined in 50 CFR 402.02 as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." Many activities within the watershed have the potential to impact fish and habitat within the action area and NMFS is not aware of any significant changes in non-Federal activities that are reasonably certain to occur. Thus, the NMFS assumes that future private and State actions will continue at similar intensities as in recent years. Future Federal actions, including the ongoing operation of hydropower systems, hatcheries, fisheries, and land management activities are being (or have been) reviewed through separate section 7 consultation processes and are not considered cumulative to the proposed action.

VI. CONCLUSION

NMFS has determined, based on the available information, that the proposed action is not likely to jeopardize the continued existence of the Lower Columbia River steelhead or adversely modify designated critical habitats. NMFS used the best available scientific and commercial data to apply its jeopardy analysis, when analyzing the effects of the proposed action on the biological requirements of the species relative to the environmental baseline, together with cumulative effects. NMFS believes that the proposed action would cause a minor, short-term degradation of anadromous salmonid habitats due to sediment impacts and in-water construction. However, over the long-term these effects are likely to be offset by improvements in habitat condition attributable to the project.

The COE has the ability to require changes to permitted activities if they are shown to result in unforeseen impacts. Alterations of the downstream bankline are likely to result from completion of this project, although the nature and extent of the probable change are unknown. Monitoring of the downstream areas after placement of the barbs for changes resulting from the thalweg relocation would allow for early detection of potential problems and allow for changes to be made to alleviate those problems.

VII. REINITIATION OF CONSULTATION

Consultation must be reinitiated if: The amount or extent of taking specified in the Incidental Take Statement is exceeded, or is expected to be exceeded; new information reveals effects of the action may affect listed species in a way not previously considered; the action is modified in a way that causes an effect on listed species that was not previously considered; or, a new species is listed or critical habitat is designated that may be affected by the action (50 CFR 402.16). To reinitiate consultation, the COE should contact the Habitat Conservation Division (Oregon Branch Office) of NMFS.

VIII. REFERENCES

Myers, J.M., R.G. Kope, G.J. Bryant, D. Teel, L.J. Lierheimer, T.C. Wainwright, W.S. Grant, F.W. Waknitz, K. Neely, S.T. Lindley, and R.S. Waples. 1998. Status review of chinook salmon from Washington, Idaho, Oregon, and California. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-35, 443 p.

Weitkamp, L.A., T.C. Wainwright, G.J. Bryant, G.B. Milner, D.J. Teel, R.G. Kope, and R.S. Waples. 1995. Status review of coho salmon from Washington, Oregon and California. National Marine Fisheries Service, Northwest Fisheries Science Center, Seattle, Washington.

IX. INCIDENTAL TAKE STATEMENT

Sections 4 (d) and 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering. Harass is defined as actions that create the likelihood of injuring listed species to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful

activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

A. Amount or Extent of the Take

The NMFS anticipates that the action covered by this Opinion has more than a negligible likelihood of resulting in incidental take of species listed in Table 1 because of detrimental effects from increased sediment levels (non-lethal) and the potential for mortality resulting from creation of predaceous fish habitat. Effects of actions such as these are largely unquantifiable in the short term, and are not expected to be measurable as long-term effects on habitat or population levels. Therefore, even though NMFS expects some low level incidental take to occur due to the actions covered by this Opinion, the best scientific and commercial data available are not sufficient to enable NMFS to estimate a specific amount of incidental take to the species itself. In instances such as these, the NMFS designates the expected level of take as "unquantifiable." Based on the information in the Biological Assessment, NMFS anticipates that an unquantifiable amount of incidental take could occur as a result of the actions covered by this Biological Opinion. The extent of the take is limited to the project area.

B. Reasonable and Prudent Measures

The NMFS believes that the following reasonable and prudent measures are necessary and appropriate to avoid or minimize take of the above species.

1. Complete all in-water work at times when few, if any, listed fish are likely to be present.

2. Use effective pollution control measures to minimize the movement of soils and sediment both into and within the stream channel.

3. Monitor downstream effects to riparian habitat resulting from placement of the barbs.

C. Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the COE must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. To implement Reasonable and Prudent Measure #1, above, the COE will ensure that all in-water work will be completed on or between July 1 and October 31, or on or between December 1 through January 31, when the fewest numbers of fish are expected to be present.[1]

2. To implement Reasonable and Prudent Measure #2, above, the COE will ensure that

    a. Only clean Class 700 riprap will be used.

    b. Staging and access areas will be located at least 50 feet away from streambank wherever topographic conditions permit.

    c. No hazardous materials, chemicals, fuels, or lubricating oils will be stored within 50 feet of the streambank.

    d. All equipment will be refueled at least 100 feet from the bank.

    e. Areas for fuel storage and servicing of construction equipment and vehicles will be located as far away from the creek as the property allows.

3. To implement Reasonable and Prudent Measure #three, above, the COE will ensure that the applicant will monitor the bankline downstream of the barbs for signs of increased erosion as follows.

    a. Before construction begins, the applicant will select monitoring sites upstream and downstream of the project location as reference locations from which to photograph features that document change on or around the project and surrounding area, and place a permanent marker, such as a steel post or rebar, at each monitoring site.

    b. Before and after construction, and then at least once every three months, or more often if necessary to document significant environmental disturbances or their aftermaths, the applicant will use the same camera, lens, film type, etc., to photograph the project and features of the landscape from each monitoring site and other locations as necessary to show the project and important environmental characteristics in the project area such as streambank cover, stability, and erosion or deposition features.

    c. By December 31 each year, the applicant will label those photographs, or copies of them, with the date and time the photograph was taken, the project number and project

[1] Oregon Department of Fish and Wildlife, Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources, 11 pp. (June, 2000).

name, and any comments necessary to describe the subject of each photograph, and submit them to:

Branch Chief - Portland
National Marine Fisheries Service
525 NE Oregon Street, #500
Portland, OR 97232

and

Chief, Regulatory Branch
Corps of Engineers, Portland District
P.O. Box 2946
Portland, Oregon 97232

d. The applicant will continue to monitor and report in this manner each year until 2005.